



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/543,150	07/25/2005	Susumu Saisho	274417US0PCT	2650
22850	7590	10/04/2007	EXAMINER	
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C.			ZIMMERMAN, JOHN J	
1940 DUKE STREET			ART UNIT	PAPER NUMBER
ALEXANDRIA, VA 22314			1775	
			NOTIFICATION DATE	DELIVERY MODE
			10/04/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com
oblonpat@oblon.com
jgardner@oblon.com

Office Action Summary	Application No. 10/543,150	Applicant(s) SAISHO ET AL.	
	Examiner John J. Zimmerman	Art Unit 1775	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>20050725</u> . | 6) <input type="checkbox"/> Other: ____ |

FIRST OFFICE ACTION

Preliminary Amendments

1. The "PRELIMINARY AMENDMENT" received July 25, 2005 has been entered.
Claims 1-16 are pending in this application.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada (U.S. Patent Application Publication No. 2002/0037426 A1).
4. Yamada discloses that an aluminum multilayer brazing sheet can be made having an intermediate aluminum alloy layer comprising 0.1-0.5 wt.% Si, 0.2-0.8 wt.% Fe, 0.5-2.0 wt.% Mn, 0.4-1.0 wt.% Cu and 0.2-1.5 wt.% Mg (e.g. see claims 6 and 11; paragraphs [0038]-[0046]) and wherein the electric potential gradient of the aluminum multilayer sheet is larger on the inner

Art Unit: 1775

side of the sheet (e.g. see paragraph [0028]). As noted by Yamada, Zn diffusion from a sacrificial layer occurs because of heating during the brazing operation and would result in some Zn content in the intermediate layer. An aluminum alloy filler (e.g. Al-Si alloys; JIS 4045) is clad on the other side of the core material (e.g. see Figure 5; paragraphs [0055] and [0062]). The core material can have an aluminum alloy composition comprising 0.1-0.5 wt.% Si, 0.2-0.8 wt.% Fe, 0.5-2.0 wt.% Mn, 0.05-0.5 wt.% Cu and 0-0.2 wt.% Mg (e.g. see paragraphs [0038]-[0046]). Although the alloying constituent ranges for the layers of Yamada may not have the same endpoints as the ranges described in the rejected claims, the ranges do overlap. Therefore, the subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have selected the overlapping portion of the range disclosed by the reference because overlapping ranges have been held to be a *prima facie* case of obviousness, see *In re Malagari*, 182 USPQ 549. See MPEP 2144.05. Regarding claims (e.g. claims 6 and 9) where the alloying content of specific constituents may not overlap but are in close approximation, specific claimed alloy, whose compositions are in such close proportions to those in prior art that, *prima facie* one skilled in the art would have expected them to have the same properties, must be considered to have been obvious from known alloys, *Titanium Metals Corporation of America v. Banner*, 227 USPQ 773.

5. Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Syslak (WO 02/090031).

Art Unit: 1775

6. Syslak discloses that an aluminum multilayer brazing sheet can be made having an inner aluminum alloy cladding layer comprising 0.7-1.5 wt.% Mn, 0-1.2 wt.% Si, 0-0.6 wt.% Fe, 1.0-2.0 wt.% Zn, 0.5 wt.% Mg and 0-0.5 wt.% Ti (e.g. see page 5, lines 22-26). In addition, Syslak discloses that the core material is an aluminum alloy comprising 0.7-1.5 wt.% Mn, 0-0.6 wt.% Si, 0-0.6 wt.% Fe, 0-0.6 wt.% Zn, 0-1.0 wt.% Cu, 0-0.4 wt.% Mg and 0-0.5 wt.% Ti (e.g. see page 5, lines 6-13). The brazing alloy layer can comprise 4-14 wt.% Si, 0-0.8 wt.% Fe, 0-0.5 wt.% Cu, 0-0.5 wt.% Mg, 0-0.5 wt.% Mn, 0.1-2 wt.% Zn and 0-0.5 wt.% Ti (e.g. see page 5, lines 1-5) is clad on one or both sides of multilayer sheet (e.g. see page 3, lines 5-15). Higher Zn content in the cladding layer renders the cladding layer less noble than the core layer (e.g. see page 6, lines 9-19). Although the alloying constituent ranges for the layers of Syslak may not have the same endpoints as the ranges described in the rejected claims, the ranges do overlap. Therefore, the subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have selected the overlapping portion of the range disclosed by the reference because overlapping ranges have been held to be a *prima facie* case of obviousness, see *In re Malagari*, 182 USPQ 549. See MPEP 2144.05.

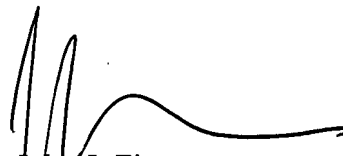
Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The additional prior art made of record serves to further establish the level of ordinary skill in the art.

Art Unit: 1775

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John J. Zimmerman whose telephone number is (571) 272-1547. The examiner can normally be reached on 8:30am-5:00pm, M-F. Supervisor Jennifer McNeil can be reached on (571) 272-1540. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



John J. Zimmerman
Primary Examiner
Art Unit 1775

jjz
September 27, 2007